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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/762,846      | 02/09/2001  | Toshikazu Uchiyama   | 172A3075PCT         | 2750             |

7590                    05/02/2002  
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|                     |              |
|---------------------|--------------|
| EXAMINER            |              |
| DOUGHERTY, THOMAS M |              |
| ART UNIT            | PAPER NUMBER |

2834

DATE MAILED: 05/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                 |                     |
|------------------------------|---------------------------------|---------------------|
| <b>Office Action Summary</b> | Application No.                 | Applicant(s)        |
|                              | 09/762,846                      | UCHIYAMA, TOSHIKAZU |
|                              | Examiner<br>Thomas M. Dougherty | Art Unit<br>2834    |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 26 April 2002.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-13 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)      4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)      5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims still do not provide sufficient structure to achieve the claimed functionality. In all the independent claims in which a comparison is to be effected, there is no predetermined voltage means claimed. In claim 1 which cites a first switch circuit, while that circuit can be reasonably expected to do the test with the predetermined voltage and the power supply voltage, there remains no connection between the amplifier circuit and the piezoelectric vibrator. While the amplifier circuit has an input, it has no output. The piezoelectric vibrator meanwhile has neither an input nor an output. In claims 2 and 8, which cite a second switch circuit, again those claims cite no predetermined voltage means yet conduct a test upon it. Again, in the oscillator circuit, the amplifier circuit has an input but no output. The piezoelectric vibrator meanwhile has neither an input or an output. In claims 3 and 4, where the piezoelectric vibrator does have an input, that being the connection from the frequency control voltage section, there still is no predetermined voltage means necessary for the test cited and furthermore in the claims which depend on these claims (5, 6, 7 and 9), there is no voltage input supplied to the frequency control voltage

section, yet this voltage too is involved in a test. In claims 10 and 11, there is no control means cited such that it is clear how drive level of the piezoelectric vibrator is controlled. Further, the term 'drive level' used in claims 10 and 11 as well as 12 and 13, requires some description. What particular characteristic is referred to here.

The result is that the claims remain indefinite. A routineer in the art cannot reasonably be expected to understand the invention as claimed were this language to issue. The rejections are maintained as the claims are best understood.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5 and 7, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Kato (JP 9-36661). Kato shows (fig. 1) a piezo-oscillator circuit comprising an oscillator circuit (2) and an amplifier circuit (1), and a constant-voltage circuit (also 1), in which a power source (Vcc) and said oscillator circuit (2) are connected through said constant voltage circuit to supply a constant voltage (output of TR1 emitter) to said oscillator circuit (2). As Kato shows the claimed structural features, his device is regarded such that wherein when a voltage of said power source is equal to or higher than a predetermined value, a function of said constant-voltage circuit is

invalidated. He further shows a frequency control voltage section (3), to which a voltage is supplied.

Claim 2, as best understood, is rejected under 35 U.S.C. 102(b) as being anticipated by Gray (US 4,142,161). Gray shows (fig. 2) a piezoelectric oscillator comprising a piezo-oscillator including a piezo-vibrator (2), an amplifier circuit (31) and a constant-current circuit (21, 22). He also shows a power source (14).

### ***Conclusion***

The claims which have not been rejected by art are so indefinite that art cannot be applied against them at this time. When they are made definite a consideration of their relationship to the prior art may be made.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Direct inquiry concerning this action to Examiner Dougherty at (703) 308-1628.

Application/Control Number: 09/762,846  
Art Unit: 2834

Page 5

*tmcd*

May 2, 2002

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*2834*